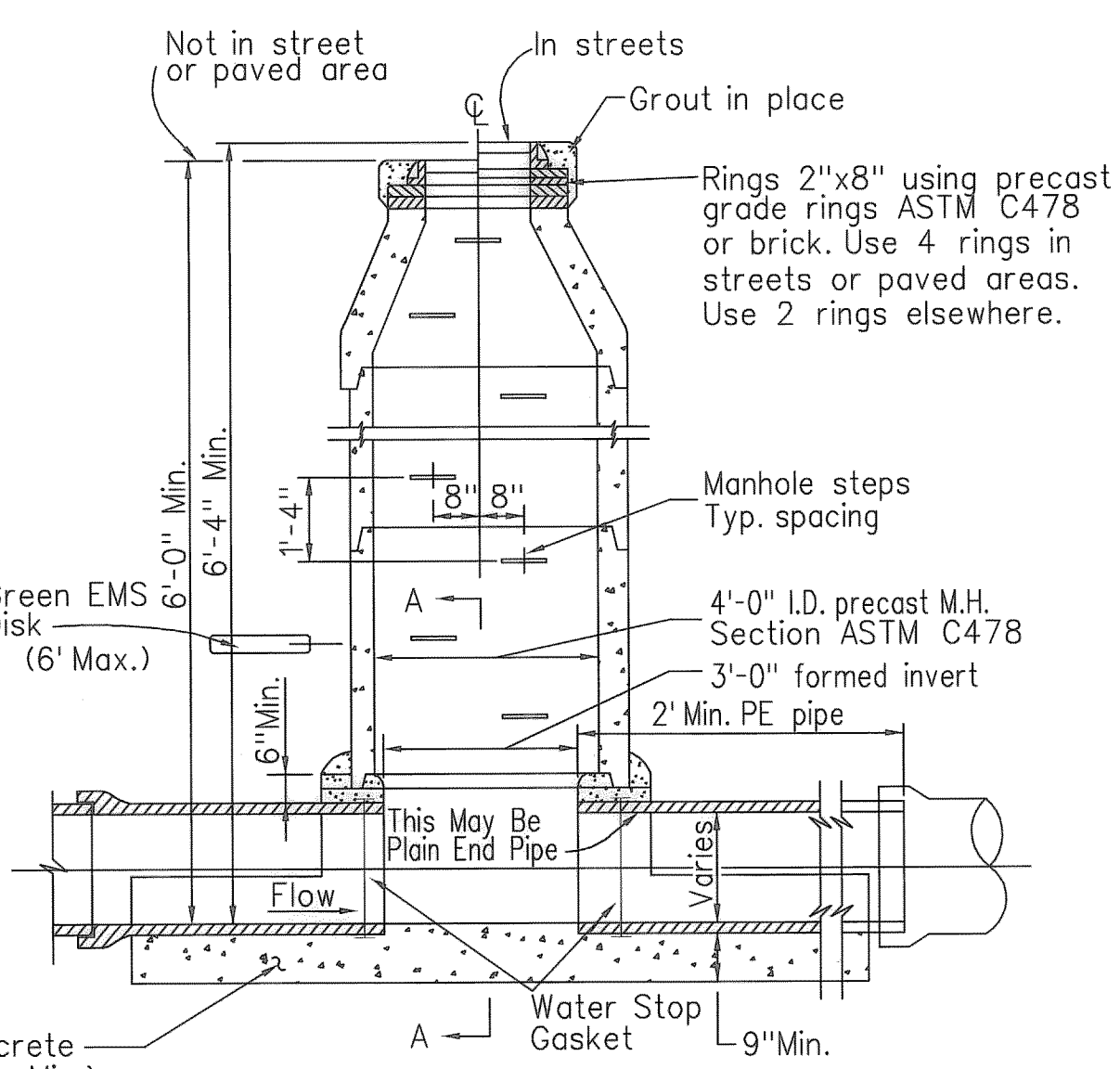
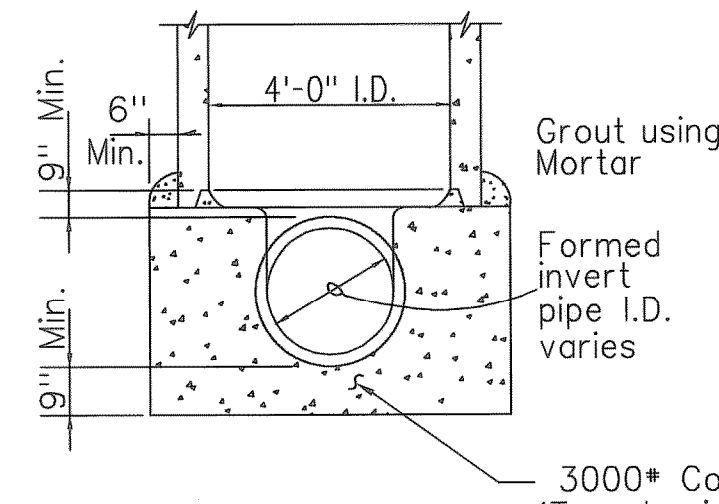


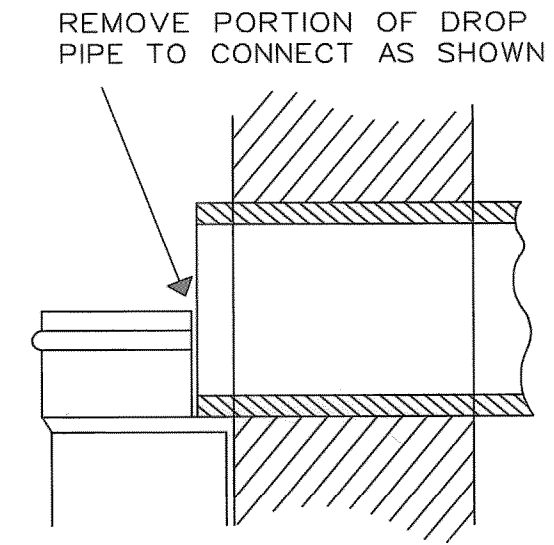
Note: Cast in place manhole shall be similar in shape and dimensions as shown. Applicable cast-in-place details shall be approved by the City. Top part of manhole may be eccentric when approved by the City. Manhole steps to be spaced vertically at 16" center/center and stagger same. Concrete above base (foundation) to be 4000 PSI class. See specifications for more details.



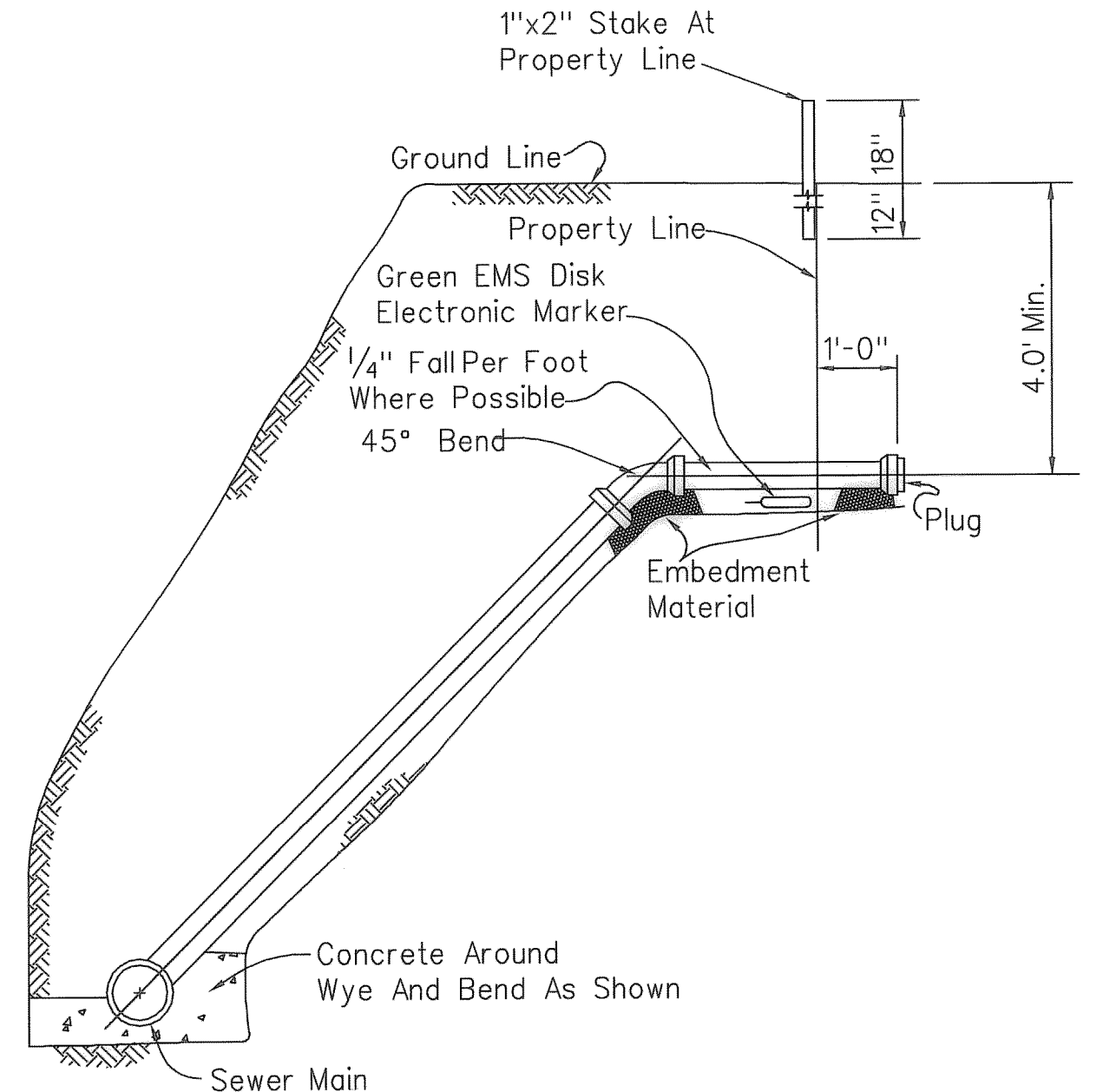
SECTION A-A SECTION THRU PRE-CAST CONCRETE MANHOLE

TYPICAL DETAILS PRE-CAST CONCRETE MANHOLE

(Depths Not Less Than 6 Feet)
See Note For Cast-In-Place Manhole

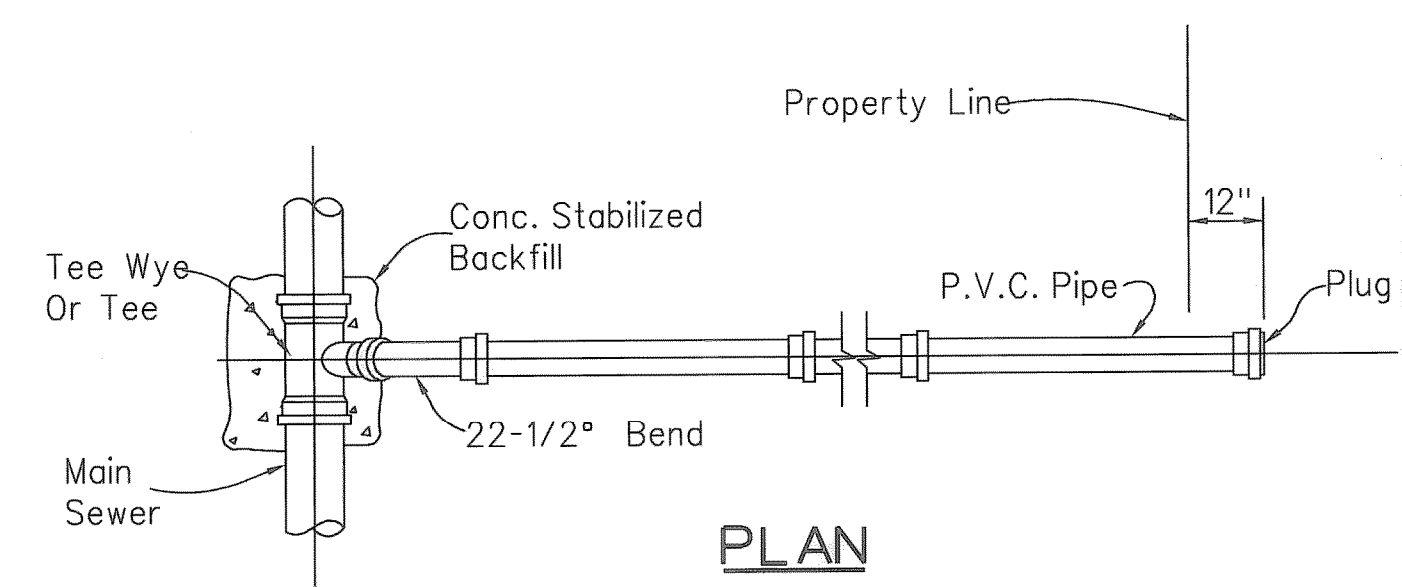


WEIR DETAIL

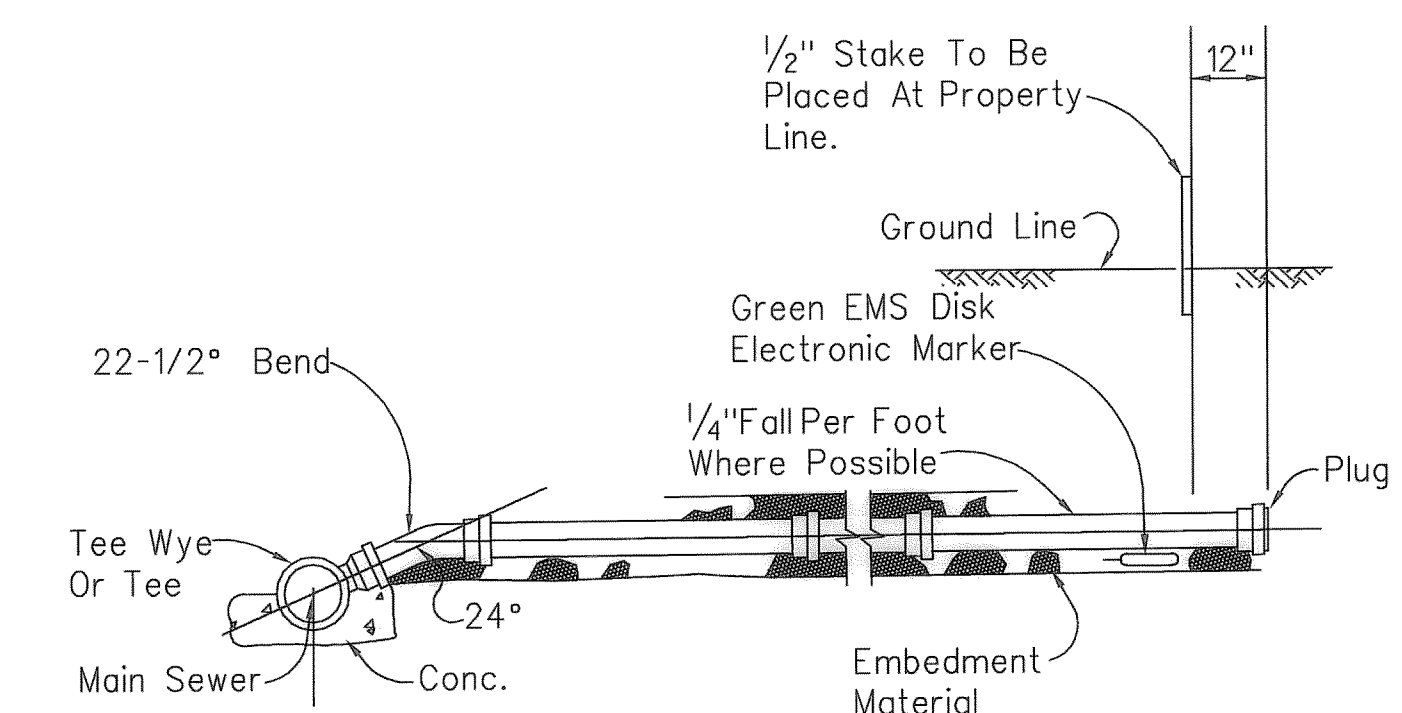


DEEP SERVICE CONNECTION

Not To Scale



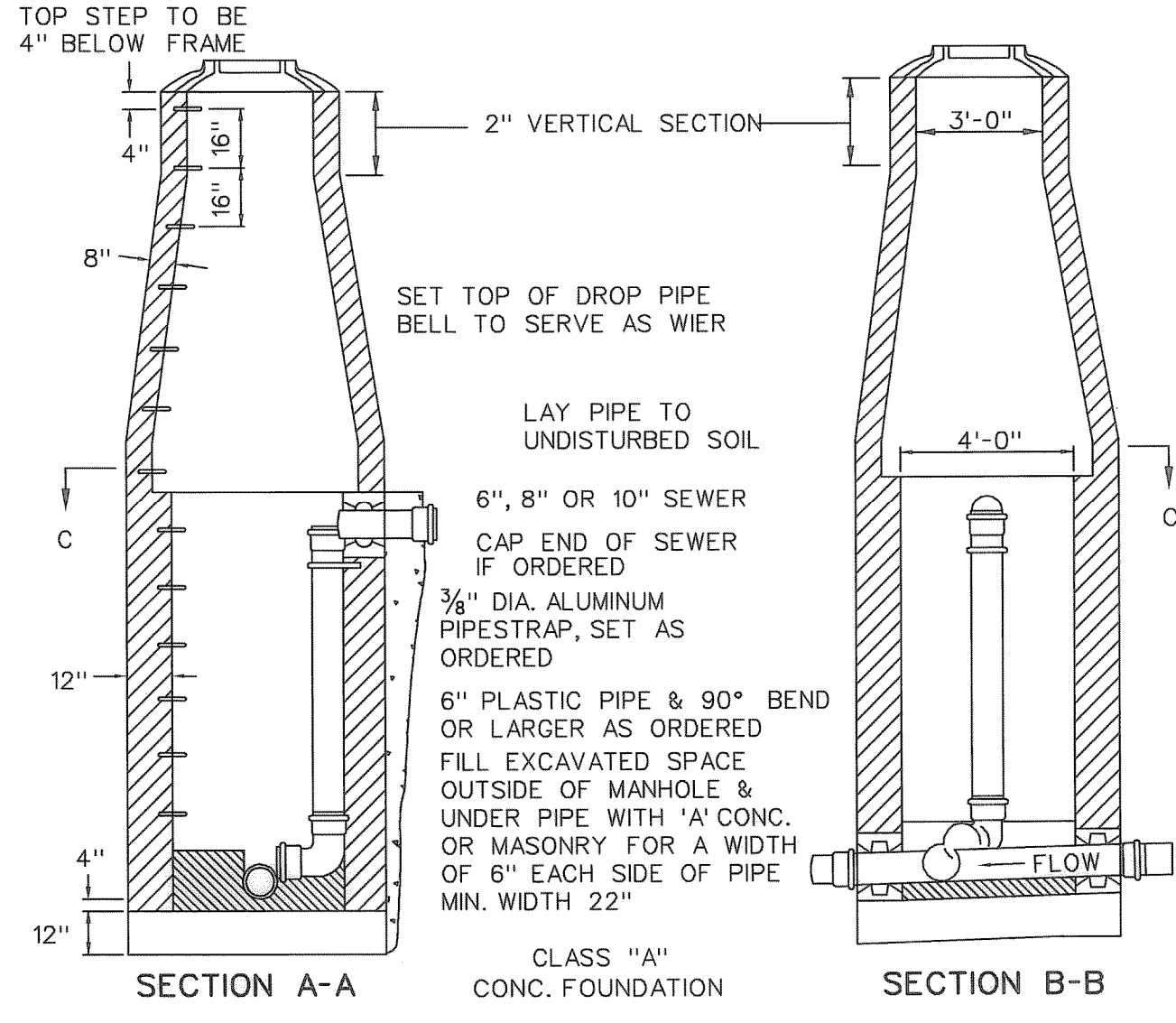
PLAN



SIDE VIEW

STANDARD SERVICE CONNECTION

Not To Scale



INSIDE DROP CONNECTION MANHOLE

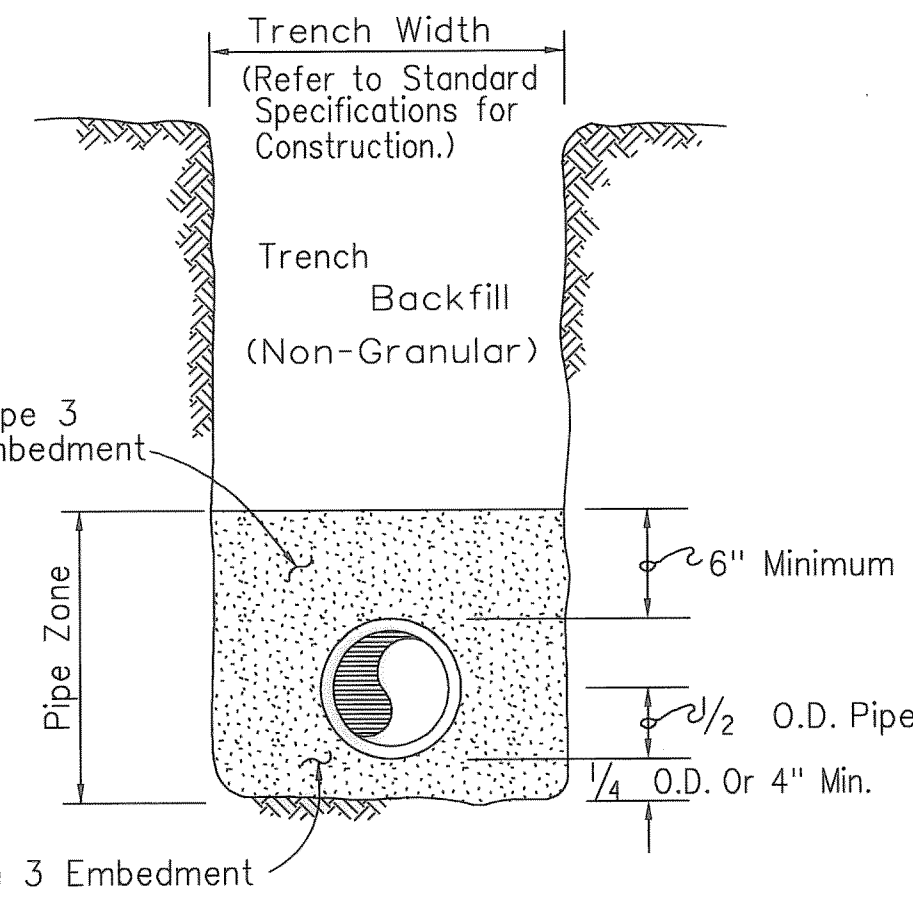
Not To Scale

CRUSHED LIMESTONE, TYPE 1, EMBEDMENT: Crushed limestone shall consist of durable particles of crushed stone ranging in size from 3/4" to 1/4" with percent of wear not exceeding 35%. The gradation based on ASTM D448 size 67 use as follows:

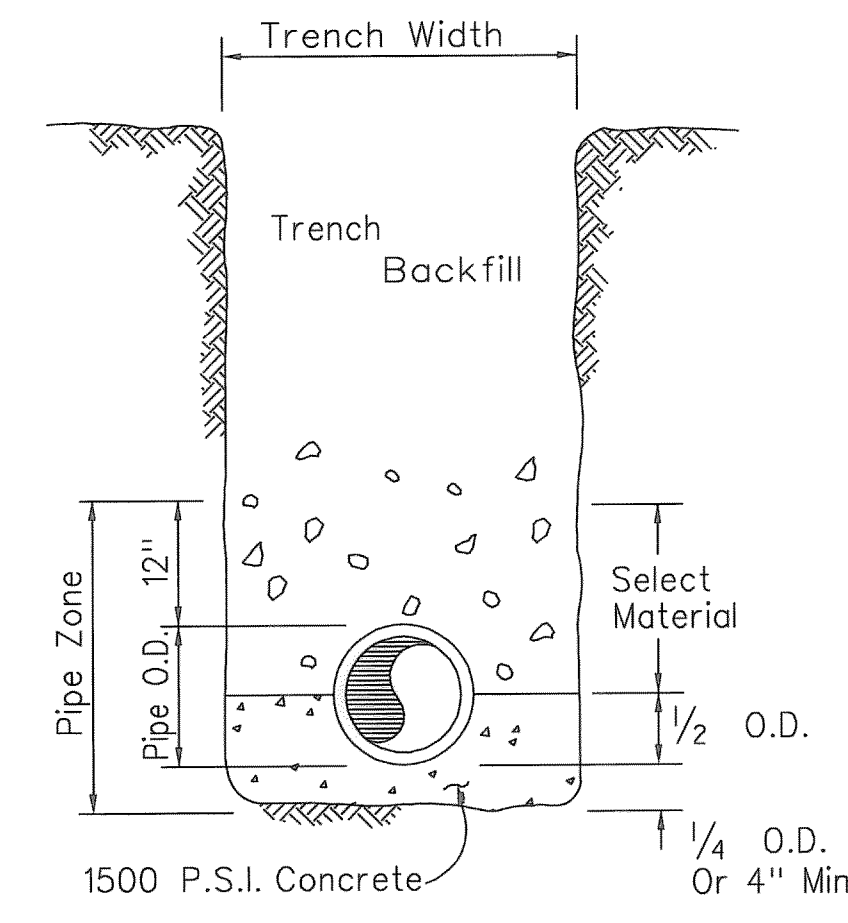
Sieve Size	% By Weight Passing
1"	100
3/4"	90 - 100
3/8"	20 - 55
No. 4	0 - 10
No. 8	0 - 5

GRAVEL, TYPE 2, EMBEDMENT: Gravel for embedment and/or encasement shall be washed gravel ranging in size from 3/4" diameter to 1/4" inch diameter meeting the requirements of ASTM designation C33, Gradation 67. The material shall be free from clay and organic material.

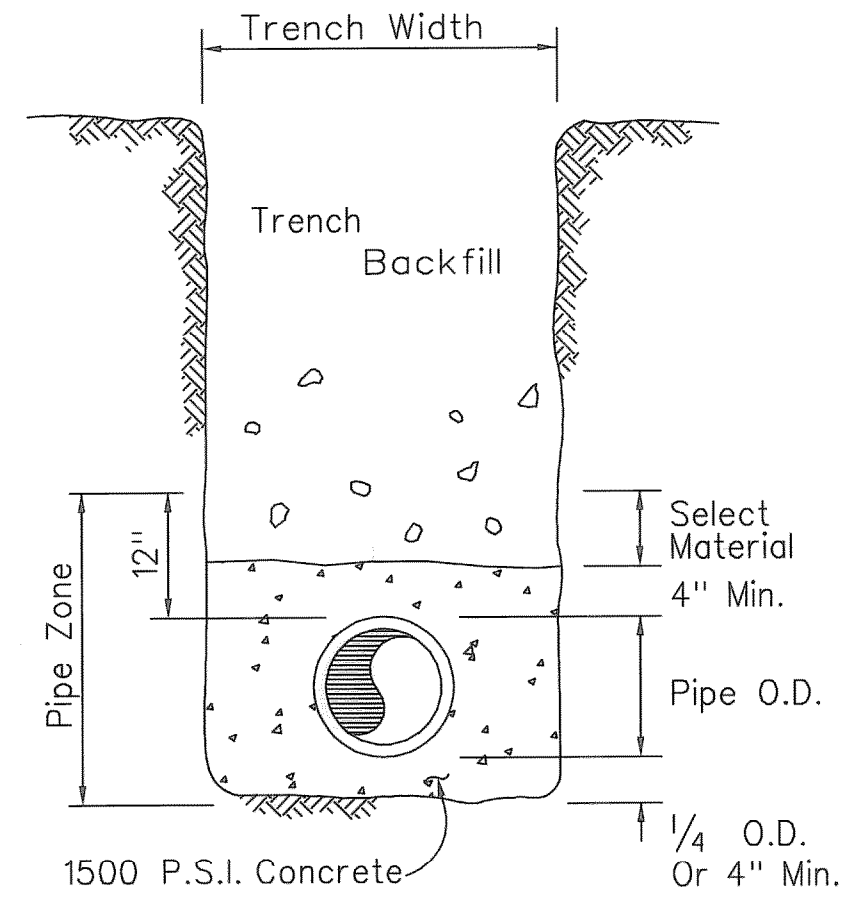
GRANULAR, TYPE 3, EMBEDMENT: Pit run granular embedment material shall be free flowing sand or mixed sand and pea gravel free from large stones, clay and organic material. The material may be an inferior grade of pit run or blow sand not normally considered satisfactory for concrete aggregate and may be used directly from pits without processing, provided it complies with the quantities described herein. The material shall be such that when wet it will not form a mud ball or tend to cling together. The material shall have 100% passing one inch (1") sieve and the plasticity index of that part passing the sieve is obtained from the City.



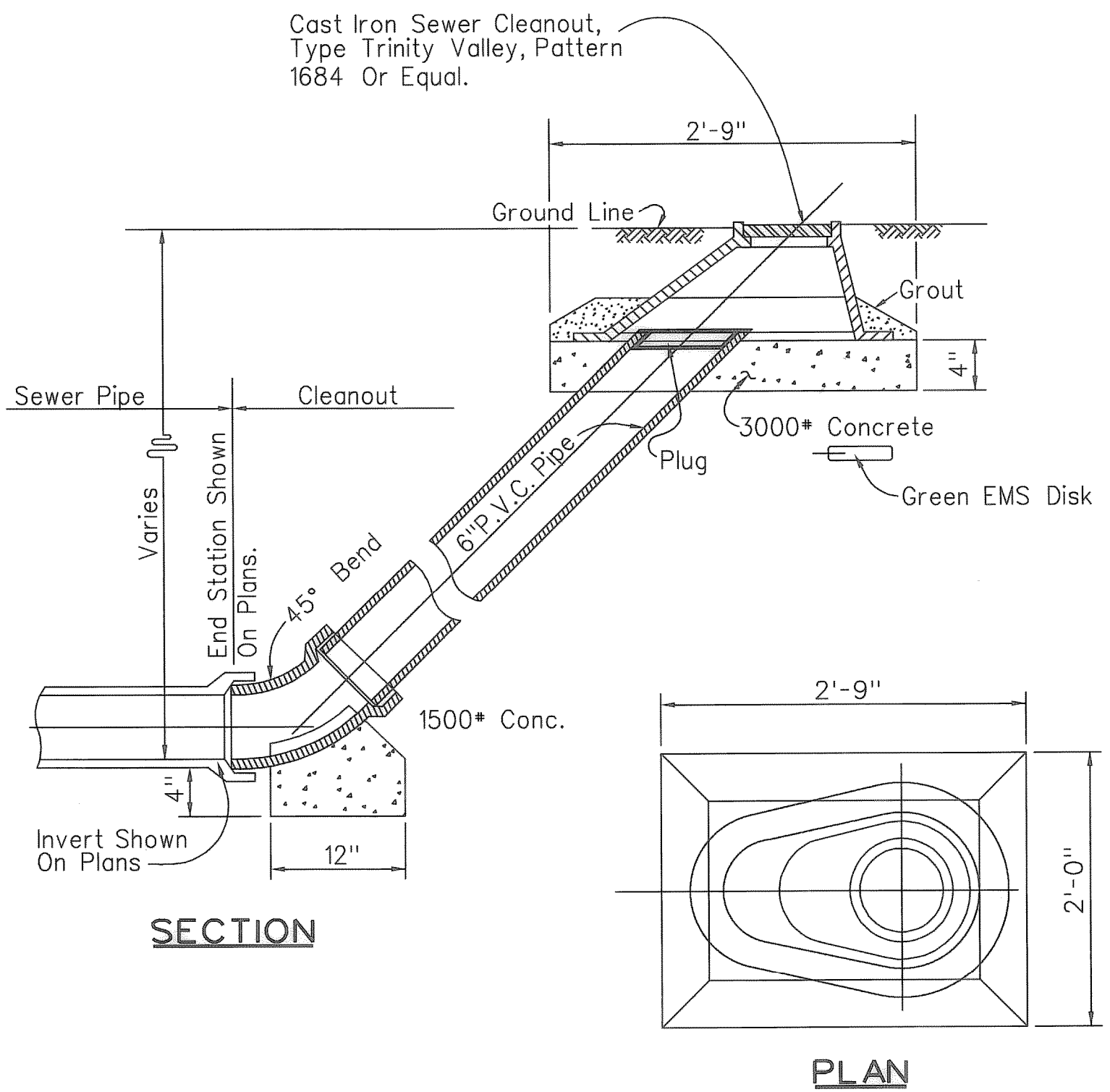
PIPE EMBEDMENT DETAIL - WATER ONLY



CONCRETE CRADLE

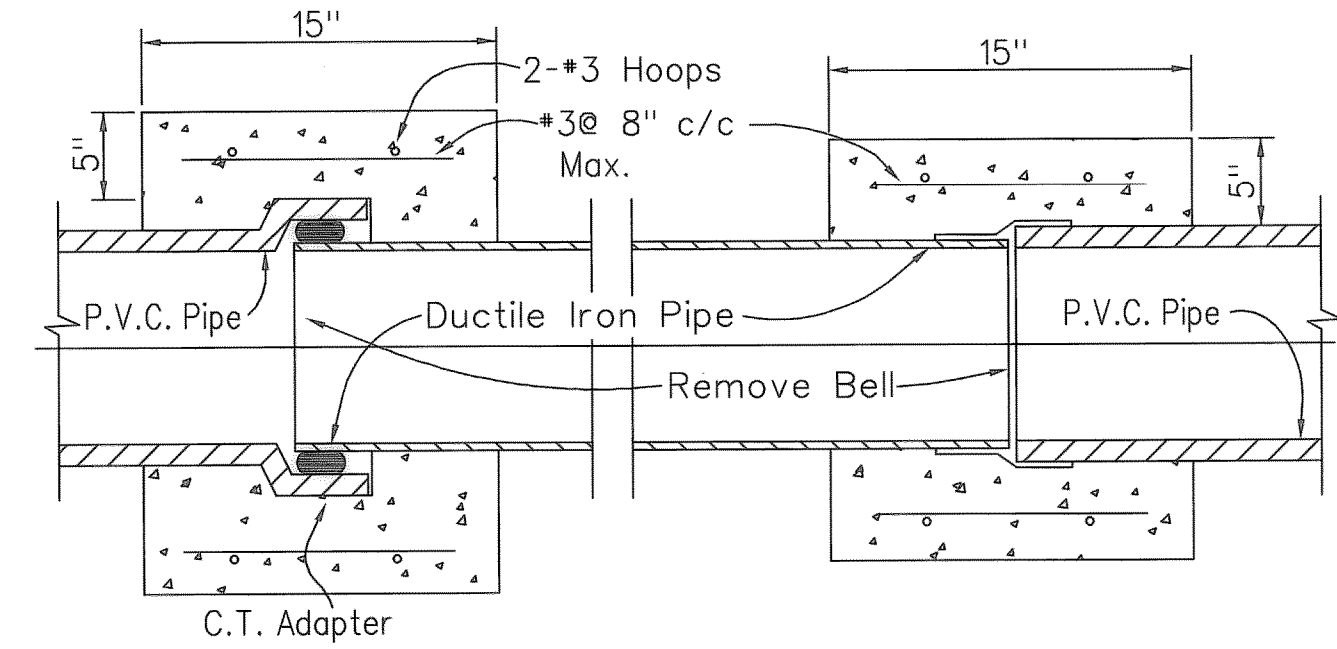


CONCRETE ENCASEMENT

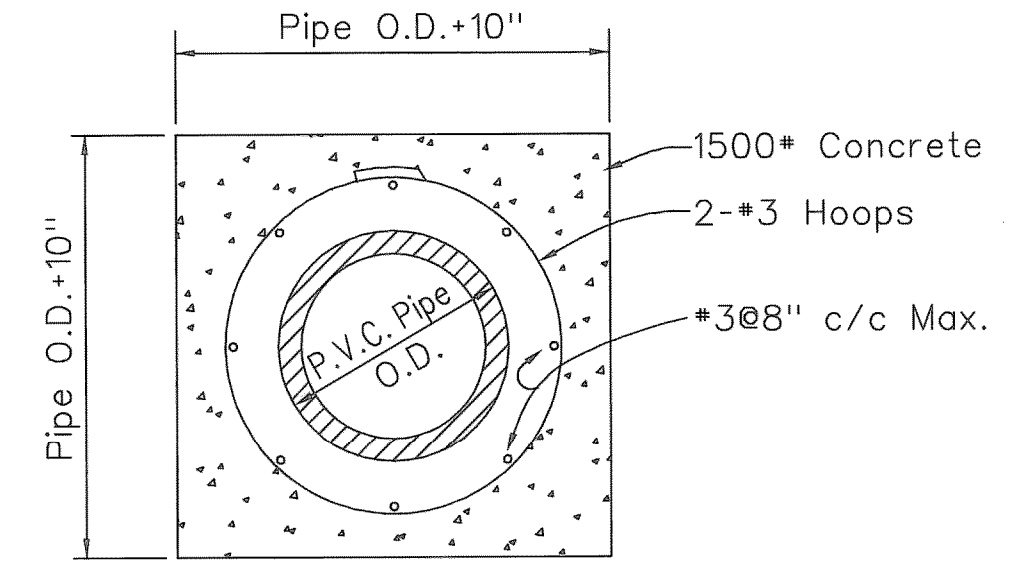


SEWER CLEANOUT

Not To Scale



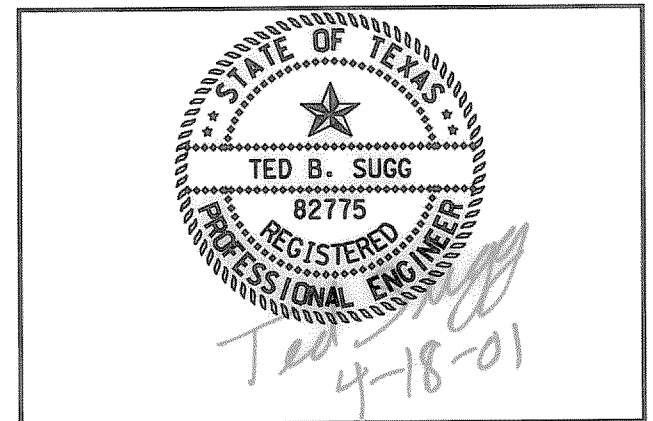
LONGITUDINAL SECTION



CROSS SECTION

DETAIL - CONCRETE PIPE COLLARS

Not To Scale



CITY OF ROCKWALL
"THE NEW HORIZON"

S.H. 66
UTILITY RELOCATIONS

STANDARD WATER & SEWER DETAILS

TurnerCollie & Braden Inc.
ENGINEERS • PLANNERS • PROJECT MANAGERS

Unit	A123	Scale	Horz. N.T.S. Vert.	Date	APRIL, 2001
Designed	VVS	Checked	TBS	Job No.	15-98925-300
Drawn	GBA	Approved	RCR		SHEET 18 OF 19

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